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I. Executive Summary

Overview:

The Pilot Station Clinic, built in 1990, is a 1200 SF clinic of somewhat typical design for the time it was constructed. It has very small waiting area, a larger exam room/office, two other exam rooms, one office, toilet/bath, janitor, storage, and mechanical room. The simple wood frame construction on a pony wall system over a gravel pad is similar to many clinics constructed in the YKHC region over the last 20-30 years. It has been modified due to heating problems with all exposed internal piping, and is very small for the current size of the village, 544 residents.

Renovation/Upgrade and Addition:

The Clinic will require a 1300 SF addition to accommodate the current need and Alaska Rural Primary Care Facility space guidelines. This addition, though possible on the existing site, would require considerable additional pad filling and substantial renovation of the existing clinic. As can be seen from the documentation enclosed, the existing clinic will require major renovation to meet current code and standards as well. The cost of renovation and addition will far exceed the cost of a new clinic facility.

New Clinic:

There are a couple options for a new clinic. The community has proposed that the existing clinic can be moved to another site and a new larger 2500 SF Denali Commission Large Clinic can be constructed on the existing site. There are also two other sites available and the new large clinic can be built on these sites as well. We have included preliminary site plans of the three options.

Some minor investigation of the two alternative sites may prove that one or the other will be preferred over the existing site. All of the sites have existing city utilities available to them and can be served easily. The mayor of Pilot Station, Art Heckman, is in process of final determination of the final site selection and should have this complete in the next couple months.

The community has completely supported this effort and have met extensively to assist in new site issues and to resolve any site considerations of the three options presented.

II. General Information

A. The Purpose of the Report and Assessment Process:

ANTHC has entered into a cooperative agreement with the Denali Commission to provide management of the small clinic program under the Alaska Rural Primary Care Facility assessment, planning, design and construction. Over 200 clinics will be inspected through the course of the program. The purpose of the Code and Condition survey report is to validate the data provided by the community in the Alaska Rural Primary Care Facility Needs Assessment and to provide each community with a uniform standard of evaluation for comparison with other communities to determine the relative need between the communities of Alaska for funding assistance for the construction of new or remodeled clinic facilities. The information provided in this report is one component of the scoring for the small clinic RFP that the Denali Commission sent to communities in priority Groups 1 and 2. The information gathered will be tabulated and analyzed according to a set of fixed criteria that should yield a priority list for funding. Additionally, the relative costs of new construction vs. remodel/addition will be evaluated to determine the most efficient means to bring the clinics up to a uniform standard of program and construction quality.

A team of professional Architects and Engineers traveled to the site and completed a detailed Field Report that was reviewed by all parties. Subsequently, the team completed a draft and then final report of the facility condition.

B. Assessment Team:

Tom Humphrey, Capital Projects Director, and Senka Paul, the administrator for Yukon Kuskokwim Health Corporation, organized the assessment team. The team for this site visit was Senka Paul, YKHC; Gerald L. (Jerry) Winchester, Architect, Winchester Alaska, Inc.; Bob Jernstrom, PE, Jernstrom Engineering, and Chet Crafts, ANTHC. Team members who assisted in preparation of report from information gathered included members of the field team above and Ben Oien PE, Structural Engineer; Eric Cowling, PE, Electrical Engineer; Carl Bassler PE, Civil Engineer; and Estimation Inc.

C. Report Format:

The format adopted is a modified "Deep Look" format, a facilities investigation and condition report used by both ANTHC and the Public Health Service, in maintaining an ongoing database of facilities throughout the country. Facilities are evaluated with respect to the requirements of the governing building codes and design guidelines. Building code compliance, general facility condition, and program needs have been evaluated. The written report includes a floor plan of the clinic, site plan as available, and new plans for renovation/upgrade or completely new clinics. Additional information was gathered during the field visit which includes a detailed Field Report and building condition checklist, sketches of building construction details, investigations of potential sites for new or replacement clinics, and proposed plans for village utility upgrades. This information is available for viewing at ANTHC's Anchorage offices and will be held for reference.

D. The Site Investigation:

On June 12, 2001, the team flew to the site and made observations, took photos, and discussed the needs with on-site personnel for the facility. Approximately five hours was spent on site, with sufficient time to investigate foundations, structure, condition, mechanical and electrical systems, and to interview the staff to assess current and projected health care needs.

Interviews were conducted with the Art Heckman, of the City of Pilot Station, Beverly Tinker, Health Aide, and other Health Aides. The city staff provided information on the existing building, site, and utilities.

Additional review of existing data from YKHC files from physician's assistants, community health aides, travel clerks, dentists, specialty clinic providers, and medivac teams. These interviews provided clear understanding of the needs of the village, the clinic facility, and the users of the facility.

The Pilot Station Mayor has reviewed the use of a Denali Commission Medium Health Clinic design adapted to one of the two Pilot Station Sites. He has agreed to proceed with final approvals of a site based on final determination of the most appropriate one.

II. Clinic Inspection Summary

A. Community Information:

Population: 550 (2000 Census)

2nd Class City, Unorganized Borough, Lowe Yukon School District, Calista Native Corporation

Location:

Pilot Station is located on the northwest bank of the Yukon River, 11 miles east of St. Mary's and 26 miles west of Marshall on the Yukon-Kuskokwim Delta. It lies at approximately 61d 56m N Latitude, 162d 52m W Longitude (Sec. 05, T021N, R074W, Seward Meridian). The community is located in the Bethel Recording District. The area encompasses 2 sq. miles of land and 1 sq. miles of water. See attached Regional Map.

History:

The village was first called "Ankachak," and later was moved one-third of a mile upriver to a site called "Potiliuk." The old village site of Kurgpallermuit is located nearby. This village is a designated historic place—it was occupied during the bow and arrow wars between the Yukon and Coastal Eskimos. According to locals, the Chevak and Pilot Station people periodically fought when the coastal people traveled up the Kashunak River. A Russian Orthodox Church was built in the early 1900s, and is one of the oldest structures in the region. R.H. Sargent of the U.S. Geological Survey first noted the village name of Pilot Station in 1916. Local riverboat pilots who used the village as a checkpoint were responsible for this name change. The community incorporated as a second-class city in 1969.

Culture:

Pilot Station is a Yup'ik Eskimo village dependent upon a fishing and subsistence lifestyle. The sale or importation of alcohol is banned in the village.

Economy:

Almost 85% of the year-round employment is with the school, city and state government. Pilot Station's private sector employment is related to the summer fishing season. 54 residents hold commercial fishing permits. Incomes are supplemented by subsistence activities. Salmon, moose, bear, porcupine and waterfowl are harvested. Trapping and BLM fire fighting also provide income.

Facilities:

More than half of the community is served by a piped water and sewer system, completed in 1973 by PHS, and are fully plumbed. 32 homes continue to haul treated well water and honeybuckets. The school operates its own water treatment system. Major infrastructure improvements are underway, to expand the piped system to the unserved 32 homes. A new water source, a water

treatment plant, a 200,000-gal. water storage tank, and water and sewer main repairs are under construction. The City also needs a new landfill.

Transportation:

A State-owned 2,520' gravel airstrip is available. Cargo, passengers and mail arrive by air. Heavy winds of up to 50 MPH are common during fall and winter. Pilot Station is easily accessible by river-going vessels. Barges deliver fuel and other bulk supplies during the summer. Skiffs and snowmobiles provide inter-village transportation. There are no roads to surrounding communities.

Climate:

The climate is maritime, averaging 60 inches of snowfall with 16 inches of total precipitation per year. Temperatures can range from -44 to 83. The Lower Yukon is ice-free from mid-June through October.

B. General Clinic Information:

Physical Plant Information:

The existing Pilot Station Health Clinic completed in 1990 occupies 1200 sq. ft. (See attached Plan) It is one of the medium size clinics constructed during the last twenty years and existing in the YKHC program area. It has small a waiting room, toilet/bathroom, janitor/supply room, office/triage/exam room, two other full exam rooms, office work area, a small supply storage area, and an exterior access mechanical room. It has a front entry with vestibule but does not allow stretcher access. The rear entry has only a stair but does allow straighter access to the exam rooms. The clinic is served with water and sewer from existing water and wastewater systems for the village. Sinks are provided in the two exam rooms, toilet/bathroom, and the janitor room.

Clinic program usage information:

Patient records indicate that the clinic saw an average of 274 patients per month in 2000 up from 228 in 1999 and 200 patients per month in 1998. This is a 25% increase on an annual basis. There are 3 full or part time staff and 1 Itinerant or contract staff equivalent. Beverly Tinker is one of the Health Aides. The office space provided is entirely inadequate as it has all office functions, travel, files, and use by all health aides. The room contains a desk, copier, fax, and two chairs for triage and other equipment and supplies.

C. Program Deficiency Narrative:

1. Space Requirements and Deficiencies:

Space Comparison Matrix - Current Pilot Station Actual SF to Denali Commission Large Clinic

Alaska Rural Primary Care Facility

Purpose / Activity	Current Clinic						Large Clinic					
	Designated Intinerant			Actual Net SF			ARPCF SF			Difference		
	Size	No.	Net Area (SF)		No.	Net Area (SF)	Size	No.	Net Area (SF)	Size	No.	Net Area (SF)
Arctic Entries				28	1	28	50	2	100			72
Waiting/Recep/Closet	150	1	150	132	1	132	170	1	170			38
Trauma/Telemed/Exam	200	1	200			0	200	1	200			200
Office/Exam				165	2	293	150	2	300			7
Admin./Records				99	1	99	110	1	110			11
Pharmacy/Lab				50	1	50	80	1	80			30
Portable X-ray						0	40	1	40			40
Specialty Clinic/Health Ed/Conf				128	1	128	150	1	150			22
Patient Holding/ Sleeping Room						0	150	1	150			150
Storage	150	1	150	50	1	50	120	1	120			70
HC Toilet				65	1	65	60	2	120			55
Janitor's Closet				21	1	21	30	1	30			9
Subtotal Net Area			500			866			1570			704
Circulation & Net/Gross Conv. @ 45%						283			707			424
Subtotal (GSF)						1149			2277			1128
Mechanical Space @ 8%				51	1	51			182			131
Total Heated Space			500			1200			2459			1259
			0									
Morgue (unheated enclosed space)							30	1	30			30
Ext. Ramps, Stairs, Loading			HC Accessible			As Required			As Required			As Required

- Overall space deficiencies: The size of the facility is about 1300 sf short of the ARPCF space requirements. Based on the YKHC very efficiently designed facility to meet ARPCF requirements, the existing facility is 1140 SF short of the needed space.
- Specific room deficiencies: There is minimal vestibule, half the waiting space, minimal office and storage space, and no itinerant sleeping area. This in combination with other small spaces leaves the clinic very program deficient.
- Other size issues: Mechanical room is very small, and there are no unheated or exterior storage areas.

2. Building Issues:

- a. Arctic Entries - The main entry is not accessible for ADA and is impossible to get a gurney into the room. It does not have a legal ramp and has storage of needed materials that cannot be stored inside the facility due to lack of room. The rear entry has a stair.
- b. Waiting / Reception - The waiting area contains a couch for secondary patient use and two chairs and has equipment and other items stored in the room.
- c. Trauma/Telemed/Exam - There is really not a trauma room specifically. There are three total rooms that are used for exam or some combination.
- d. Office / Exam - There are two exam rooms, which are crowded with equipment to the extent of impaired use. There was no capability of putting a patient in a gurney in the exam room or in any part of the facility. The third exam room is used as an office with copier, and exam table at one end.
- e. Administration / Records - There is one office room space used for all administrative, records, scheduling, telemedicine and other functions.
- f. Pharmacy / Lab - There is not Pharmacy and medicines are stored in locked cabinets in the exam rooms.
- g. Specialty Clinic / Health Education / Conference - This function is completed in the exam rooms. There is no special area.
- h. Patient Holding / Sleeping Room - There is no sleeping room and only a rollaway bed for itinerant staff.
- i. Storage - Storage is inadequate and is an impediment to safety and the operation of this clinic. There is a lack of adequate storage for needed medical supplies, files, and equipment in this facility. There is minimal storage and mostly it is in the exam rooms. There is storage in rear entry, janitors, and mechanical rooms.
- j. HC Toilet Facilities - A single toilet room serves patients and clinic staff. Toilet room did not meet all of the ADA or UPC requirements. Entry door width was too narrow, and the toilet and sink lacked sufficient clearances and were of incorrect fixture type. There is no vacuum breaker on this sink as required by code (UPC section 603.d).
- k. Janitors Room - There is no exhaust air for the janitor's room as required by code (UMC section 504 and UBC section 1202.2). This room is used extensively as storage.
- l. Office/Triage/Exam - The office/triage/exam room 7' x 9' combined into one room. It was barely large enough for the desk, copier, and fax let alone space required to accommodate patients. There is no sink in the room and therefore sanitation for patients was an issue. Privacy was very difficult. Note that electrical service is completely inadequate for the needs of the equipment.
- m. Mechanical/Boiler room - The room consists a small room for the boiler and systems. The access is via outside door and is separated from the rest of the facility. The boiler is in very poor shape and all of the heating system is in poor condition including all radiators and

pipings have been re-routed to exposed condition which is very unsanitary. There is not the required clearance to combustibles (entry door swing) or space as required by code (UMC section 304.2 and 304.6). There is no combustion air opening as required by code (UMC section 707.1

- n. Ancillary Rooms – There are no ancillary rooms as all space is used to 150% capacity including storage rooms, exam rooms, toilet rooms, office, waiting room, corridors, and vestibules.

3. Functional Design Issues

This facility is functionally inadequate for its intended use. The spaces do not meet the functional size requirement, access is non-compliant, and the ability to perform required medical functions within the facility is severely hampered by lack of storage.

4. Health Program Issues

- a. Vestibule and comfort:

The front door of the clinic is through a very small vestibule, which is inadequate to defer the heat loss. There is no ADA access or gurney access. The waiting room is cold every time the door is opened and the cold air migrates into the clinic where patients are being attended.

- b. Medical/Infectious Waste

This is being handled in a very basic method and is hampered by the small non-functional facility.

- c. Infection Control

This is being completed with minimal long-term control due to lack of facilities. Floor materials are very worn out and replaced with multiple materials and sizes allowing for control problems. There are no rubber base materials, and wall and ceiling materials are also considerably lacking in cleaning ability. The exposed heat piping also provides very unsanitary conditions and impossible cleaning of the exam rooms.

- d. Insect and Rodent Control

None noted or investigated

- e. Housekeeping

The difficulty in cleaning and housekeeping in such a congested facility is understandable and is being done at the best level currently possible.

5. Utilities

- a. Water Supply

The city water is provided by the existing Water and Sewer system.

- b. Sewage Disposal

Sewer system is provided by the city system to lagoon.

- c. Electricity

See Electrical Narrative.

- d. Telephone

A single phone line services the clinic and is inadequate for current needs.

e. Fuel Oil

The fuel system is not adequate with some leaking having occurred around the existing above ground tank. There is not protection or containment for possible spilling.

D. Architectural / Structural Condition

1. Building Construction:

a. Floor Construction:

The floor is 2x10 joist over a 2x6 treaded pony wall and enclosed crawlspace with 3 x 12 treated pad for foundation system. There is considerable settlement and heaving which has caused doors to stick and floor to be uneven. There is approximately 4 inches of differential in the floor elevations. There is no insulation of crawlspace and therefore all piping has been relocated internal to the room space. There is batt insulation of the 2x10 joist space with 3/8" plywood soffit.

b. Exterior Wall Construction:

The walls are 2x8 construction at 24" oc with R-24 insulation. The sheathing is T-111 plywood siding painted and fiberglass batt insulation with vapor barrier and gypsum wallboard on the interior.

c. Roof Construction:

The roof is a full-span truss at 24" oc with plywood deck and metal roof. The insulation is R-38 batt insulation that is minimal in this climate and required upgrading to R-60.

d. Exterior Doors:

The exterior doors are residential insulated metal. They are in very poor shape and need replacement.

e. Exterior Windows:

Windows are of thermo-pane wood casement windows; require thorough rework and repainting for upgrade to useful life..

f. Exterior Decks, Stairs, and Ramps

There are minimal Arctic entries. The landing at the exterior door is deteriorating, and the stairs rise and run do not meet code. The ramp is very steep and does not meet ADA and the handrails and landings do not meet code. Requires all new stairs, ramps, railings and landings.

2. Interior Construction:

a. Flooring:

The flooring is Vinyl Tile over plywood. It has been replaced in many areas and is work out and covered with duct-tape in other areas. Entire replacement of sub-floor and finish is required to meet sanitary requirements.

- b. Walls:
The walls are of 2x4 wood construction, with no sound insulation. The type of wall construction does not provide for patient privacy in any way. The finish is gypsum wallboard and in serious need of repair and repaint. There are many cracks in wallboard due to settlement and shifting building.
- c. Ceilings:
The ceilings are gypsum wallboard as well and needing repair and repaint due to cracking as well.
- d. Interior doors:
The interior walls are of hollow core wood construction that provides minimal construction durability and they are all in need of repair. Additionally, these doors are not acceptable for patient privacy and sound control. There has been floor shifting and most of the doors do not close properly.
- e. Casework:
The upper casework is non-existent and the lower casework is of very poor construction. Plastic laminate tops that do not fit to walls and are damaged. The sanitary issues are very significant with the counters being of such poor construction. Need full replacement.
- f. Furnishings:
The furnishings are very old and worn. There is an old couch in the waiting room and a variety of mismatched and old desks, chairs, and tables for other use. The exam tables are older as well.
- g. Insulation:

Floor Insulation		R-6 to R-9
Wall Insulation	R-19	
Attic/Roof Insulation		R-38
Attic Ventilation		NONE
- h. Tightness of Construction:
The building is of poor overall construction, with numerous leaks in construction system at doors, floor, roof, and sills.
- i. Arctic Design:
The vestibules are minimal, orientation is OK, and siting of the clinic is next to a large gully that probably needs additional fill.

3. Structural

- a. Foundations
The foundation is pony wall with pad over a gravel pad and is in poor structural condition. Pads have settled, walls are racked, and the building has floor level deviation and has substantial cracking on the interior. There is no hold down strapping and the bracing is loose or missing. In general the foundation needs substantial upgrade to new useful life or replacement.

- b. Walls and Roof:
The walls and roof seem in relatively stable and adequate condition.
- c. Stairs, Landings, and Ramps
These elements are in poor condition and need of replacement with signs of rotting and deterioration of structural elements.

E. Mechanical Condition

1. Heating System

a. Fuel Storage and Distribution

The clinics heating fuel oil storage tank is located adjacent to the building and not a minimum of 5 ft. as required by code (UFC table 7902.2). The 550-gallon storage tank does have the proper venting as required by code (UMC section 7902.11.4) or valving as required by (UFC section 7901.11.4).

b. Boiler

A single residential grade, oil-fired boiler provides heating for the entire clinic. The boiler is in fair shape with minimal controls and systems to meet the needs of the Health Clinic. There is severe corrosion on the boiler stack and the vent assembly is in poor condition. There are no additional heaters in the clinic to assist with heating. There is no combustion air opening for the boiler which is not according to code (UMC section 707.1).

c. Heat Distribution System

The piping has been rerouted in the clinic to avoid freezing and is exposed throughout the facility. The entire heating system is in need of replacement. The baseboard enclosures are all bent and broken.

2. Ventilation System

a. System

There is no mechanical ventilation system. Ventilation is by operable windows. The windows do not open easily and as such do not provide effective ventilation. A ceiling mounted exhaust fan services the toilet room, but the fan is inoperable. The janitor's room was not provided with an exhaust fan.

b. Outside Air

Some of the rooms with operable windows have broken or missing operators so the windows cannot be opened.

3. Plumbing System

a. Water System

The water system plumbing is typical ½" and ¾" copper distribution piping to the clinic exam sinks and toilet fixtures.

b. Sewer System

City sanitary sewer provides the needs of the clinic.

c. Fixtures

Neither the exam sinks nor toilet-plumbing fixtures are ADA approved or UPC table 14.1 code compliant for barrier free access.

F. Electrical Condition

1. Electrical Service
 - a. The electrical service is provided by AVEC meter number 873 048. The service is an overhead connection to the building with a meter/main combination panel located on the exterior of the building.
 - b. The service is a 100 Amp, 120/240V, 1 Ph, 3 wire. The wire size is #2 copper.
2. Power Distribution
 - a. The MDP is a 100 Amp Square D QO load center #QOB20L125 Series G1 with 24 poles total of which 12 are spare.
 - b. Non-metallic sheathed type SER cable is provided for the main feeder to the MDP from the service entrance disconnect.
 - c. Non-metallic sheathed cable (Romex) is ed for the branch circuit wiring.
3. Grounding System
 - a. The building has an exterior driven ground rod. The water bond and footing ground could not be verified.
4. Exterior Elements
 - a. Exterior lighting is high pressure sodium wall packs located at each man door. On-Off control is by manual wall switch only.
 - b. No exterior power receptacles were noted.
 - c. Telephone service enters at a weatherproof protection test block on the exterior of the building.
5. Electrical devices and lighting
 - a. Receptacles are grounding type. GFCI receptacles are provided within 6 ft of sinks of most sinks.
 - b. The lighting is predominately 4 ft fluorescent T12 (2) lamp surface mounted wrap diffuser fixtures. Support rooms are incandescent type A19 lamped fixtures.
 - c. Interior device plates are non-metallic ivory decorative plates.
 - d. Heat trace is provided on the waste line under the building however does not appear to be connected.
6. Emergency System
 - a. Building has egress signage installed at the egress doors.
 - b. Wall pack emergency lights are provided for emergency egress lighting in exit corridor.

7. Fire Alarm System

- a. A partial fire alarm system exists with pull stations at 48" AFF adjacent to each exit door with a bell inside the building. System does not have horn/strobes or dial out capabilities.
- b. Heat/smoke detector is provided in the corridor.

8. Telecommunication

- a. A voice system is provided by one telephone outlet in each room. No data system is presently installed.

G. Civil / Utility Condition**1. Location of building****a. Patient Access**

Located in the relative center of the village for ease of access and seems to work fine. It is on the road to the airport which is an advantage.

b. Service Access

Road access is provided to front and rear entry. Neither stair access to rear, nor ramp and stairs to front entry meet code access requirements. Ramps are excessively steep providing a slipping hazard in winter months.

c. Other Considerations:

The facility is located next to a gully and the sewage lagoon for the city is just beyond the back property line. This requires some filing in the long term for any expansion of the facility.

2. Site Issues**a. Drainage**

Drainage from the site is adequate. There is a significant pad on which the building is constructed. Correction would include putting a new extended pad on the site prior to placing the post and pad system.

b. Snow

There does not appear to be a snow-drifting problem as the facility sits in the open.

3. Proximity of adjacent buildings

There is an adjacent new post office building on one side and a maintenance garage on the other side that are within approximately 60-80 ft of the building. A new facility could be located on the site after moving of the existing building and new pad construction.

1. Utilities**a. Water Supply**

The new city water supply provides adequate water for the facility.

b. Sewage Disposal

Sewage disposal is provided by City system.

- c. Electricity
Power from Village system via overhead wire. See Photos
- d. Telephone
Overhead phone with only one phone connection, requiring fax and phone on same line.

H. Existing Facility Floor Plan (Site Plans, New Clinic plans, Regional Map):

We have attached drawings, as we have been able to identify, find, or create as part of this report. We have endeavored to provide all drawings for all the sites; however, in some cases exact existing site plans were not available. We have provided as indicated below:

- A1.1 Existing Site Plan is attached if available
- A1.2 Existing Facility Floor Plan is attached following.
- A1.3 The Existing typical wall section is attached following as required by the report guidelines.
- A2.1 The Addition to the Existing Facility as required to meet ARPCF Space Guidelines is attached following.
- A3.1 The New Clinic Site plan is attached as proposed based on the community input.
- A3.2 The New Denali Commission Clinic Floor Plan meeting the ARPCF Space Guidelines and proposed for this location is attached.

IV. Deficiency Evaluation

A. Deficiency Codes:

The deficiencies are categorized according to the following deficiency codes to allow the work to be prioritized for funding. The codes are as follows:

- 01 Program Deficiencies:** Based on assessment of the facility's ability to support the stated services that are required to be provided at the site.
- 02 Fire and Life Safety Deficiencies:** Based on the identified areas where the facility is not in compliance with provisions of the state building codes including, UBC, UFC, NFPA 101, UMPC, NEC. These are organized sequentially from Architectural
- 03 General Safety:** Based on items that are not necessarily code items but are conditions that are considered un-safe by common design and building practices.
- 04 Environmental Compliance:** Based on non-conformance with DEC regulations, hazardous materials and general sanitation.
- 05 Program Deficiencies:** These are items that are required for delivery of the medical services model currently accepted for rural Alaska. This may include space requirements, functional needs, or other items to meet the delivery of quality medical services.
- 06 Unmet Supportable Space Needs:** These are items that are required to meet the program delivery of the clinic and may not be show or delineated in the Alaska Primary Care Facility Space Guidelines.
- 07 Disability Access Deficiencies:** Items not in compliance with the Americans with Disabilities Act.
- 08 Energy Conservation:** These are items that are required for energy conservation and good energy management.
- 09 Plant Management:** This category is for items that are required for easy and cost efficient management and maintenance of the Physical Plant.
- 10 Architectural M & R:** Items affecting the architectural integrity of the facility, materials used, insulation, vapor retarder, attic and crawlspace ventilation, and general condition of interiors, and prevention of deterioration of structure and systems.
- 11 Structural M & R:** Deficiencies and items affecting the integrity of the building. These include foundations, roof and wall structure, materials used, insulation, vapor retarders, attic and crawlspace ventilation, and general condition of interiors.
- 12 Mechanical M & R:** Deficiencies in plumbing, heating, ventilation, air conditioning, or medical air systems.

- 13 Electrical M & R:** Deficiencies with electrical generating, distribution, fire alarm, and communications systems.
- 14 Utilities M & R:** Deficiencies with the utilities hook-ups, systems, and distribution.
- 15 Grounds M & R:** Deficiencies with the civil site issues, drainage, access, etc.
- 16 Painting M & R:** Deficiencies of painting, exterior, interior, trim and soffit.
- 17 Roof M & R:** Deficiencies in roofing, and related systems including openings.
- 18 Seismic Mitigation:** Deficiencies in seismic structural items or other related issues to seismic design including material improperly anchored to withstand seismic effect.

B. Photographs:

We have provided photographs attached which are noted to describe the various deficiencies described in the narratives and itemized in the summary below. The photos do not cover all deficiencies and are intended to provide a visual reference to persons viewing the report who are not familiar with the facility.

We have included additional photos as Appendix B for general reference. These are intended to add additional information to the specific deficiencies listed and to provide general background information.

C. Cost Estimate General Provisions

1. New Clinic Construction

- **Base Cost**

The Base Cost provided in Section VI of this report is the direct cost of construction, inclusive of general requirements (described below) and contingency for design unknowns (an estimating contingency). The base cost is exclusive of overhead and profit, mark-ups, area cost factors and contingencies. Material costs for the project are all calculated FOB Anchorage and labor rates are based on Davis Bacon wages, regionally adjusted to Anchorage. Transportation costs, freight, Per Diem and similar costs are included in the base costs. The Project Factors and Area Cost Factor are multipliers of the base costs.

General Requirements are based on Anchorage costs without area adjustment. It is included in the Base Cost for New Clinics. These costs are indirect construction cost not specifically identifiable to individual line items. It consists of supervision, materials control, submittals and coordination, etc. The general requirements factor has not been adjusted for Indian Preference.

The Design Unknowns Contingency is an estimator's contingency based on the schematic nature of the information provided, the lack of any real design, and the assumption that any project will encompass related work not specifically mentioned.

- **Project Cost Factors**

- Equipment Costs for new medical equipment has been added at 17% of the cost of new floor space.
- Design Services is included at 10% to cover professional services including engineering and design.
- Construction Contingency is included at 10% of the Base Costs to cover changes encountered during construction.
- Construction Administration has been included at 8% of the Base Costs. This is for monitoring and administration of the construction contract.

- **Area Cost Factor**

The Area Cost Factor used in the cost estimates for this facility is shown in Section VI of this report. The area cost factors are taken from a recent study completed for the Denali Commission for statewide healthcare facilities. The numbers are the result of a matrix of cost variables including such items as air travel, local hire costs, room and board, freight, fire protection equipment, foundation requirements, and heating equipment as well as contractor costs such as mobilization, demobilization, overhead, profit, bonds and insurance. These parameters were reconsidered for each village, following the site visit, and were modified, if necessary.

- **Estimated Total Project Cost of New Building**

This is the total estimated cost of the project, including design services. The construction contract will be work subject to Davis Bacon wages, and assumes construction before year-end 2001. No inflation factor has been applied to this data.

2. Remodel, Renovations, and Additions

- **Base Cost**

The Base Cost provided in the specific deficiency sheets is the direct cost of construction, exclusive of overhead and profit, mark-ups, area cost factors and contingencies. Material costs for the project are all calculated FOB Anchorage and labor rates are based on Davis Bacon wages, regionally adjusted to Anchorage. Most of the deficiency items do not constitute projects of sufficient size to obtain efficiency of scale. The estimate assumes that the projects are completed either individually, or combined with other similar projects of like scope. The numbers include moderate allowances for difficulties encountered in working in occupied spaces and are based on remodeling rather than on new construction costs. Transportation costs, freight, Per Diem and similar costs are included in the base costs. The General Requirements, Design Contingency and Area Cost Factors are multipliers of the base costs.

The cost of Additions to clinics is estimated at a unit cost higher than New clinics due to the complexities of tying into the existing structures.

Medical equipment is calculated at 17% of Base Cost for additions of new space only and is included as a line item in the estimate of base costs.

- **General Requirements Factor**

General Requirements Factor is based on Anchorage costs without area adjustment. The factor is 1.20. It is multiplied by the Base Cost to get the project cost, exclusive of planning, architecture, engineering and administrative costs. This factor assumes projects include multiple deficiencies, which are then consolidated into single projects for economies of scale. The general requirements factor has not been adjusted for Indian Preference.

- **Area Cost Factor**

The Area Cost Factor used in the cost estimates for this facility is shown in Section VI of this report. The area cost factors are taken from a recent study completed for the Denali Commission for statewide healthcare facilities. The numbers are the result of a matrix of cost variables including such items as air travel, local hire costs, room and board, freight, fire protection equipment, foundation requirements, and heating equipment as well as contractor costs such as mobilization, demobilization, overhead, profit, bonds and insurance. These parameters were reconsidered for each village, following the site visit, and were modified, if necessary.

- **Contingency for Design Unknowns (Estimating Contingency)**

The Design Unknowns Contingency is an estimator's contingency based on the schematic nature of the information provided, the lack of any real design, and the assumption that any project will encompass related work not specifically mentioned. The factor used is 1.15.

- **Estimated Total Cost**

This is the total estimated bid cost for work completed under Davis Bacon wage contracts, assuming construction before year-end 2001. This is the number that is entered in the front of the deficiency form. No inflation factor has been applied to this data.

- **Project Cost Factors**

Similar to new clinics, the following project factors have been included in Section VI of this report.

- Design Services is included at 10% to cover professional services including engineering and design.
- Construction Contingency is included at 10% of the Base Costs to cover changes encountered during construction.
- Construction Administration has been included at 8% of the Base Costs. This is for monitoring and administration of the construction contract.

- **Estimated Total Project Cost of Remodel/Addition**

This is the total estimated cost of the project including design services, the construction contract cost for work completed under Davis Bacon wages and assuming construction before year-end 2001. No inflation factor has been applied to this data.

V. Summary of Existing Clinic Deficiencies

The attached sheets document the deficiencies; provide recommendations on how to make repairs or accommodate the needs and provide a cost estimate to accomplish the proposed modifications. The summary addresses individual deficiencies. If all deficiencies were to be addressed in a single construction project there would be cost efficiencies that are not reflected in this tabulation.

These sheets are reports from the Access Data Base of individual Deficiencies that are compiled on individual forms and attached for reference.

Refer to Section VI. New Clinic Analysis for a comparison of remodel/addition to new construction.

VI. New Clinic Analysis

The analysis of whether a new clinic is required is based on the Denali Commission standard of evaluation that "New Construction is viable if the cost of Repair/Renovation and Addition exceeds 75% of the cost of New Construction".

We have therefore determined the cost of a New Clinic Construction to meet the Alaska Rural Primary Care Facility (ARPCF) Space Guidelines for the size of village. We have also determined the cost to Repair/Renovation and Addition to the existing Clinic to meet the same ARPCF Space Guidelines.

A. The cost of a New Denali Commission 2500 SF Large Clinic in Pilot Station is projected to be:

• Base Anchorage Construction Cost per s.f.		\$183
• Project Cost Factor:	@ 45%	\$ 82
Medical Equipment	17%	
Construction Contingency	10%	
Design Fees	10%	
Construction Administration	8%	
• Multiplier for Village	@ 1.28	\$ 74
Adjusted Cost per SF		\$340

Projected Cost of a New Clinic: 2500 s.f. X \$340 = \$850,000

B. The cost of the Repair/Renovation and Additions for the existing Clinic are projected to be:

• Code & Condition Repairs/Renovations		
Cost from Deficiency Summary		\$257,295
• Remodel/Upgrade work (See Def. Code 18)		
75% of clinic 1200 SF = 900 SF @ \$103/SF		\$93,041
• Additional Space Required by ARPCF – (See Def. Code 01)		
○ Base Anchorage Cost		\$183
Additional Costs – @ 52%		\$115
Medical Equipment	17%	
General Requirements	20%	
Estimation Contingency	15%	
○ Multiplier for Village @1.28		\$ 84
Adjusted Cost per SF		\$382
Total Addition Cost of 1300 SF @ \$382		\$498,582
• Project Cost Factor:	@ 28%	\$237,697
Construction Contingency	10%	
Construction Administration	8%	
Design Fees	10%	
Total cost of remodel/addition		\$1,086,615

C. Comparison of Existing Clinic Renovation/Addition versus New Clinic:

Ratio of Renovation/Addition versus New Clinic is:

$$\text{\$1,086,615} / \text{\$850,000} = 1.28 \times \text{cost of New Clinic}$$

Based on Denali Commission standard of evaluation; the remodel/addition costs are more than 75% of the cost of new construction. A new clinic is recommended for this community.

* Note: Village factors may have been adjusted for recent 2001 cost adjustments and may have changed from previously published data distributed to the villages.

VII. Conclusions and Recommendations

The existing Pilot Station Clinic has served the community well for many years. Base on current ANTHC and YKHC delivery model for health care to rural Alaska, the facility is not adequate in size or in condition to meet these needs. The existing structure could be adapted for many other less clinical and medically stringent uses without extensive remodeling.

After careful review it is the recommendation of the consultant team that a new Denali Commission 2500 SF Large Clinic be considered for Pilot Station. The addition of approximately 1300 sf of clinic space required by the current ARPCF Program Space Guidelines and the major renovation and upgrading of the existing clinic space will cost 1.28 times the cost of a new clinic. This results in the recommendation of a new clinic for this village.

We reviewed the options with the local community leaders the consensus was that the New Large Clinic would meet the current community needs and for years to come. In addition, they agreed that the existing clinic location may be an acceptable option, or that there are two possible sites that are available for construction of a new clinic. All three of these sites are adjacent to all existing city utilities.

The community believes this is a good solution and will produce the best return for funds invested in a clinic that meets the needs of Pilot Station community and is aggressively moving to assist in any way to accomplish this goal.

Appendix A: Specific Deficiencies Listings

The attached sheets represent the individual deficiencies identified for this project and the corrective action required to meet current codes and standards of construction. The deficiencies are further summarized in Section V. Summary of Existing Clinic Deficiencies.